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EXAMINER	
DEBNATH, SUMAN	
ART UNIT	PAPER NUMBER
2435	

NOTIFICATION DATE	DELIVERY MODE
11/26/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/712,665	KHANGAONKAR ET AL.	
	Examiner	Art Unit	
	SUMAN DEBNATH	2435	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 September 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *5,8-10,18,19 and 23-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *5,8-10,18,19 and 23-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 5, 8-10, 18-19 and 23-30 are pending in this application.

2. Claims 26-30 are currently amended.

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office Action.

Claim Rejections - 35 USC § 103

4. Claims 5, 8-10, 18-19 and 23-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lerner (Patent No.: US 6,954,799 B2) and further in view of Cocotis et al. (Pub. No.: US 2003/0078965 A1) (hereinafter, "Cocotis) and Belfiore et al. (Patent No.: US 6,990,513 B2) (hereinafter, "Belfiore").

5. As to claim 5, Lerner discloses a method for integrating applications hosted at different enterprises separated by at least one firewall, the method comprising steps of:

receiving high level business data from a source application program at an agent device operating as a spoke in a first hub and spoke integration system, wherein the agent device comprises an encryption engine (FIG. 3, col. 7, lines 11-67 to col. 8, lines 1-16, "there is provided the message queuing middleware 370 similar in operation and function to the message queuing middleware 350. Similarly, the encryption/decryption engine 380 is configured to encrypt and decrypt data as with the encryption/decryption engine 340."; "the message broker based architecture shown in FIG. 3 contains a

message broker component which provides message routing and transformation services in the "hub" of the "hub and spoke" arrangement.");

using the agent device for encoding the high level business data according to a message queuing protocol to provide an MQ message to an MQ server operating as a hub in a second hub and spoke integration system separated from the first hub and spoke integration system by the Internet (FIG. 3, col. 7, lines 11-67 to col. 8, lines 1-16);

using an encryption engine for encrypting the MQ message to provide an encrypted MQ message (FIG. 3, col. 7, lines 11-67 to col. 8, lines 1-16);

using the first queue manager for storing the encrypted MQ message for delivery to the MQ server until said MQ server is ready (FIG. 3, col. 7, lines 11-67 to col. 8, lines 1-16, "The message queuing middleware 350 is configured to package data into messages and assure their delivery, even over unreliable transport media such as the internet."); and

transmitting, via the Internet using HTTP, the encrypted MQ message to the MQ server (FIG. 3, col. 7, lines 11-67 to col. 8, lines 1-16),

using a second queue manager at the second hub and spoke integration system for decrypting the encrypted MQ message to produce a decrypted MQ message (FIG. 3, col. 7, lines 11-67 to col. 8, lines 1-16);

using a second agent device for decoding the decrypted MQ message to recover the high level business data (FIG. 3, col. 7, lines 11-67 to col. 8, lines 1-16);

using the MQ server for processing of the high level business data when received (FIG. 3, col. 7, lines 11-67 to col. 8, lines 1-16).

Although Lerner teaches the concept of hub and spokes integration system (col. 8, lines 1-16), Lerner doesn't explicitly disclose an encryption engine integrated into the agent device for encrypting the MQ message using Hyper-Text Transport Protocol Secure (HTTPS) to provide an encrypted MQ message; transmitting, via the Internet using HTTP and MQ Series Internet Passthrough (MQ IPT); wherein the high level business data passes through a first demilitarized zone and a second demilitarized zone in order to reach the MQ server; wherein the first and second demilitarized zones each comprise at least one firewall separating its resident queue manager from the Internet.

However, Cocotis discloses wherein the high level business data passes through a first demilitarized zone and a second demilitarized zone in order to reach the MQ server; wherein the first and second demilitarized zones each comprise at least one firewall separating its resident queue manager from the Internet (FIG. 8, which describes DMZ zones, see also [0378], which provides a secure pass-though through a firewall.).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the teaching of Lerner as taught by Cocotis in order to make sure LAN devices are secure by separating them from the Internet.

Although Learner discloses encryption engine for encrypting MQ messages (FIG. 3), neither Learner nor Cocotis explicitly disclose an encryption engine integrated into the agent device for encrypting the MQ message using Hyper-Text Transport Protocol Secure (HTTPS) to provide an encrypted MQ message. It should be noted that using HTTPS to transmit secure data is well known in the art. Furthermore, Belfiore discloses

an encryption engine integrated into the agent device for encrypting the MQ message using Hyper-Text Transport Protocol Secure (HTTPS) to provide an encrypted MQ message (FIG. 6, col. 4, lines 49-60; Belfiore teaches the concept integrating an encryption engine into the agent device by including HTTPS within the Queue engine).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the teaching of learner and Cocotis as taught by Belfiore in order to make sure secure delivery of publicly transmitted data.

6. As to claim 8, Learner discloses comprising maintaining a record of the messages received from the source application program (col. 7, lines 11-67 to col. 8, lines 1-16).

7. As to claim 9, Learner discloses wherein the record of the messages received from the source application program comprises information on the number of messages received (col. 7, lines 11-67 to col. 8, lines 1-16).

8. As to claim 10, Learner discloses wherein the record of the messages received from the source application program comprises information on type of messages received (col. 7, lines 11-67 to col. 8, lines 1-16).

9. As to claim 18, Lerner discloses a method for transmitting high-level data in real time to one or more enterprises (abstract), the method comprising:

receiving via the Internet, at a first agent acting as a spoke in a first hub and spoke integration system, from an application, an encrypted MQ message comprising high level business data from a source application and a request to process the data by a server acting as a hub in a second hub and spoke integration system (FIG. 3, col. 7, lines 11-67 to col. 8, lines 1-16, "there is provided the message queuing middleware 370 similar in operation and function to the message queuing middleware 350. Similarly, the encryption/decryption engine 380 is configured to encrypt and decrypt data as with the encryption/decryption engine 340."; "the message broker based architecture shown in FIG. 3 contains a message broker component which provides message routing and transformation services in the "hub" of the "hub and spoke" arrangement.");

using a first queue manager for decrypting the MQ message (FIG. 3, col. 7, lines 11-67 to col. 8, lines 1-16);

storing the decrypted MQ message; and transmitting, via the Internet using HTTP, at each end of the Internet, the encrypted MQ message to a first queue manager for retransmission at a time when the network is suitable for transporting the message to the server (FIG. 3, col. 7, lines 11-67 to col. 8, lines 1-16, "The message queuing middleware 350 is configured to package data into messages and assure their delivery, even over unreliable transport media such as the internet.").

Lerner doesn't explicitly disclose relaying the encrypted MQ message to a first queue manager for decoding the encrypted MQ message using a message queuing protocol located at said first queue manager; decrypting the MQ message using a

Hyper-Text Transport Protocol Secure (HTTPS) security protocol and transmitting using MQ Series Internet Passthrough (MQ IPT), and through the firewalls at each end of the Internet. However, Cocotis discloses transmitting using MQ Series Internet Passthrough (MQ IPT), and through the firewalls at each end of the Internet (FIG. 8, which describes DMZ zones, see also [0378], which provides a secure pass-though through a firewall.).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the teaching of Lerner as taught by Cocotis in order to make sure LAN devices are secure by separating them from the Internet.

Although Learner discloses encryption engine for encrypting MQ messages (FIG. 3), neither Learner nor Cocotis explicitly disclose relaying the encrypted MQ message to a first queue manager for decoding the encrypted MQ message using a message queuing protocol located at said first queue manager; decrypting the MQ message using a Hyper-Text Transport Protocol Secure (HTTPS) security protocol. It should be noted that using HTTPS to transmit secure data is well known in the art. Furthermore, Belfiore discloses relaying the encrypted MQ message to a first queue manager for decoding the encrypted MQ message using a message queuing protocol located at said first queue manager (FIG. 6, col. 4, lines 49-60; Belfiore teaches this concept by having MSMQ and HTTPS within the messaging component); decrypting the MQ message using a Hyper-Text Transport Protocol Secure (HTTPS) security protocol (FIG. 6, col. 4, lines 49-60; Belfiore teaches the concept by having an HTTPS module within the Messaging component).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the teaching of learner and Cocotis as taught by Belfiore in order to make sure secure delivery of publicly transmitted data.

10. As to claim 23, it is rejected using the similar rationale as for the rejection of claim 5.

11. As to claim 24, the combination of Lerner, Cocotis and Belfiore disclose further comprising a protocol for telling a sender to stop sending messages so that it can perform bookkeeping functions (Lerner: FIG. 3, col. 7, lines 11-67 to col. 8, lines 1-16).

12. As to claim 25, the combination of Lerner, Cocotis and Belfiore disclose wherein the encryption engine comprises a secure sockets layer protocol (Lerner: FIG. 3, col. 7, lines 11-67 to col. 8, lines 1-16).

13. As to claim 26, it is rejected using the similar rationale as for the rejection of claim 5.

14. As to claim 27, the combination of Lerner, Cocotis and Belfiore disclose comprising an instruction for storing the encrypted MQ message in a queue manager prior to transmitting the encrypted MQ message (Lerner: FIG. 3, col. 7, lines 11-67 to col. 8, lines 1-16).

15. As to claim 28, the combination of Lerner, Cocotis and Belfiore disclose comprising an instruction for sending a message to the source application program instructing the source application program to stop sending data (Lerner: FIG. 3, col. 7, lines 11-67 to col. 8, lines 1-16).

16. As to claim 29, the combination of Lerner, Cocotis and Belfiore disclose comprising an instruction for maintaining a record of the messages received from the source application program (Lerner: FIG. 3, col. 7, lines 11-67 to col. 8, lines 1-16).

17. As to claim 30, the combination of Lerner, Cocotis and Belfiore disclose wherein the record of the messages received from the source application program comprises information on the number of messages received (Lerner: FIG. 3, col. 7, lines 11-67 to col. 8, lines 1-16).

18. Examiner's note: Examiner has cited particular columns and line numbers in the references as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may be applied as well. It is respectfully requested from the applicant, in preparing the responses, to fully consider the references in entirety as potentially teaching all or part

of the claimed invention as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

Response to Arguments

19. Applicant's arguments filed on September 10th, 2010 have been fully considered but they are not persuasive.

20. Applicant argues regarding claim 5 that: "Lerner does not disclose Applicant's claim 5 limitation with respect to "receiving high level business data from a source application program." Rather, Lerner's invention is directed at receiving browser cookies from a client-driven web browser (used as a term of art to refer to simple text used for user authentication)."

In response to applicant's argument, it should be a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, and then it meets the claim. It should be noted that a high level business data is nothing more then a set of data. Lerner teaches the structure by using message queuing middleware (i.e. MQ messaging) with a combination of encryption/decryption engine to encrypt/decrypt the MQ messaging (e.g. see, FIG. 3, col. 7, lines 11-67 to col. 8, lines 1-16). Furthermore, Lerner teaches a hub and spokes structure to process the data ("the message broker based architecture shown in FIG. 3 contains a message broker

component which provides message routing and transformation services in the "hub" of the "hub and spoke" arrangement." –e.g. see, col. 7, lines 11-67 to col. 8, lines 1-16).

21. In response to applicant's argument regarding claim 5 that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "a separate MQ server which is disposed between the Server acting as a hub for an enterprise application integration system and the firewall that separate the LAN from the internet") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Further to clarify, claim 5 recites, "using the agent device for encoding the high level business data according to a message queuing protocol to provide an MQ message to an MQ server operating as a hub" in line 6 which contradicts Applicant's argument of having a separate MQ server which is disposed between the Server acting as a hub for an enterprise application integration system and the firewall that separate the LAN from the internet. Furthermore, Lerner teaches the concept of having MQ server which process MQ messaging by having a message queuing middleware within a server which also process MQ messaging (e.g. see col. 7, lines 11-67 to col. 8, lines 1-16).

22. Applicant argues that: "Lerner does not teach nor include Applicant's claim 5 include a limitation regarding "transmitting, via the Internet using HTTP" the encrypted

message. In fact, Lerner makes no mention of "HTTP" and none are in the context of encrypted communications, rather they are directed at describing standard web browser communication (i.e. "HTTP request" or "HTTP redirect")."

In response to Applicant's argument Examiner asserts that web browser communication covers the limitation of transmitting by the Internet using HTTP. Furthermore, Examiner asserts that Belfiore discloses an encryption engine integrated into the agent device for encrypting the MQ message using Hyper-Text Transport Protocol Secure (HTTPS) to provide an encrypted MQ message (FIG. 6, col. 4, lines 49-60; Belfiore teaches the concept integrating an encryption engine into the agent device by including HTTPS within the Queue engine).

23. Applicant argues that: "Cocotis does not teach or disclose the limitation "wherein the high level business data passes through a first DMZ and a second DMZ zone in order to reach the MQ server."

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Further to clarify, Lerner teaches the concept of MQ server which process MQ messaging by having a message queuing middleware within a server which also process MQ messaging (e.g. see col. 7, lines 11-67 to col. 8, lines 1-16); Cocotis discloses wherein the data passes through a first demilitarized zone and a second

demilitarized zone in order to reach the MQ server; wherein the first and second demilitarized zones each comprise at least one firewall separating its resident queue manager from the Internet (FIG. 8, which describes DMZ zones, see also [0378], which provides a secure pass-though through a firewall.) and Belfiore discloses an encryption engine integrated into the agent device for encrypting the MQ message using Hyper-Text Transport Protocol Secure (HTTPS) to provide an encrypted MQ message (FIG. 6, col. 4, lines 49-60; Belfiore teaches the concept integrating an encryption engine into the agent device by including HTTPS within the Queue engine).

24. Applicant argues regarding claim 18 that: "A fundamental difference between the cited Lerner "message broker in the "hub of the "hub and spoke" arrangement" and the Applicant's claimed agent is that the latter is placed "as a spoke in a first hub and spoke integration system". See also Applicant's paragraph [0022] and FIG. 1".

Examiner asserts that Applicant's hub and spoke system is conceptually similar to Lerner's hub and spoke system. Lerner teaches the concept of hub and spoke system which provides message routing using message queuing ("FIG. 3 contains a message broker component which provides message routing and transformation services in the "hub" of the "hub and spoke" arrangement." –e.g. see, FIG. 3, col. 7, lines 11-67 to col. 8, lines 1-16).

25. Applicant argues regarding claim 18 that: "Applicant also resubmits that Lerner's transmitted data is not "high-level business data" as limited by Applicant's claim 18" as defined by the Applicant in paragraph [0008] (i.e.: "business information")."

In response to applicant's argument, it should be a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, and then it meets the claim. It should be noted that a high level business data is nothing more then a set of data. Lerner teaches the structure by using message queuing middleware (i.e. MQ messaging) with a combination of encryption/decryption engine to encrypt/decrypt the MQ messaging (e.g. see, FIG. 3, col. 7, lines 11-67 to col. 8, lines 1-16). Furthermore, Lerner teaches a hub and spokes structure to process the data ("the message broker based architecture shown in FIG. 3 contains a message broker component which provides message routing and transformation services in the "hub" of the "hub and spoke" arrangement." –e.g. see, col. 7, lines 11-67 to col. 8, lines 1-16).

26. Applicant argues regarding claim 18 that: "Applicant's limitation regarding a "using a first queue manager for decrypting the MQ message" is neither taught nor disclosed by Lerner."

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208

USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Further to clarify, Lerner teaches the concept of MQ server which process MQ messaging by having a message queuing middleware within a server which also process MQ messaging (e.g. see col. 7, lines 11-67 to col. 8, lines 1-16); Belfiore teaches the concept of using a first queue manager for decrypting the MQ message (FIG. 6, col. 4, lines 49-60; Belfiore teaches the concept by having an HTTPS module within the Messaging component).

Conclusion

27. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SUMAN DEBNATH whose telephone number is (571)270-1256. The examiner can normally be reached on 8 am to 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Y. Vu can be reached on 571 272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/S. D./
Examiner, Art Unit 2435

/Kimyen Vu/

Supervisory Patent Examiner, Art Unit 2435